

WHAT IS CLAIMED:

1. A method for disrupting cultured cells that lack a cell wall comprising passing the cells suspended in a suspension fluid through a nozzle at a low pressure, wherein the outflow of the nozzle does not impinge on the outflow of a second nozzle if multiple nozzles are present.
2. The method of claim 1 wherein the low pressure ranges from 1 to 100 psi.
3. The method of claim 1 wherein the low pressure ranges from 5 to 70 psi.
4. The method of claim 1 wherein the low pressure ranges from 10 to 60 psi.
5. The method of claim 1 wherein the nozzle has an orifice with a diameter ranging from 0.1 mm to 100 mm.
6. The method of claim 5 wherein the orifice has a diameter ranging from 0.5 mm to 10 mm.
7. The method of claim 1 wherein the orifice has a diameter ranging from 1 mm to 3 mm.
8. The method of claim 1 wherein the nozzle has a tapered or conical shape.
9. The method of claim 1 wherein the nozzle has both a tapered entrance and a tapered exit.
10. The method of claim 1 wherein the cells are animal cells.
11. The method of claim 9 wherein the animal cells are selected from the group consisting of: VERO cells, CHO cells, and diploid fibroblast cells.
12. A method according to claim 10 wherein the animal cells are MRC-5 diploid lung cells.

13. A method of harvesting a cell product contained within cells that does not have a cell wall comprising:

culturing the cells in a culture medium under culture conditions suited to bring about the production of the desired cell product;

5 suspending the cells in a suspension fluid;

passing the suspended cells through a nozzle at a low pressure, wherein the outflow of the nozzle does not impinge on the outflow of a second nozzle or any other impingement surface, so that the cells are disrupted at a pressure of from about 5 to 100 psi and the cell product is released; and

10 recovering the released cell product.

14. The method of claim 13 wherein the product is selected from the group consisting of a polysaccharide, a protein, and a virus.

15. A method of harvesting a virus grown in an animal cell comprising:

culturing animal cells infected with the virus;

suspending the animal cells containing the virus in a suspension fluid;

15 passing the suspended animal cells through a nozzle at a low pressure, wherein the outflow of the nozzle does not impinge on the outflow of a second nozzle if multiple nozzles are present, so that cells are disrupted and the virus is released; and

20 harvesting the released virus.

16. A method according to claim 12 wherein the virus is Varicella virus.